

What is claimed is:

1. A method of controlling the formation of crystalline hydrates in a fluid system, said method comprising contacting the fluid with a polymer capable of interacting with charged molecules in the fluid, and allowing the polymer to sorb the charged gaseous
5 molecules.

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2. The method as claimed in claim 1 wherein the fluid is selected from the group consisting essentially of

(i) oil and water,

(ii) gas and water,

5 (iii) a combination of oil and gas and water.

3. The method as claimed in claim 1 wherein the polymer is a hyperbranched polyamino polymer.

4. The method as claimed in claim 1 wherein the polymer is a dendritic polymer.

5. The method as claimed in claim 1 wherein the polymer is a combination of a
10 hyperbranched polyamino polymer and a dendritic polymer.

6. The method as claimed in claim 1 wherein the polymer is a siliconized hyperbranched polyamino polymer.

7. The method as claimed in claim 1 wherein the polymer is a siliconized dendritic polymer.

15 8. The method as claimed in claim 1 wherein the polymer is a combination of a siliconized hyperbranched polyamino polymer and a siliconized dendritic polymer.

9. The method as claimed in claim 1 wherein the polymer is a combination of a hyperbranched polyamino polymer and a dendritic polymer and wherein one of the polymers is siliconized.

20 10. A method as claimed in claim 1 wherein the polymer has a molecular weight of at least 5000 Daltons.

11. A method as claimed in claim 1 wherein the polymer is associated with a solid particle.

25 12. A method as claimed in claim 11 wherein the association is the immobilization of the polymer on the surface of the solid particle.

13. A method as claimed in claim 11 wherein the association is the solid particle embedded in the polymer.

14. A method as claimed in claim 11 wherein the solid particle is silica.

15. A method as claimed in claim 14 wherein the silica is fumed.

30 16. A method as claimed in claim 14 wherein the silica is precipitated.

17. A method as claimed in claim 14 wherein the silica is a silica gel.

18. A method as claimed in claim 14 wherein the silica is dispersed.
19. A method as claimed in claim 11 wherein the solid particle is diatomaceous earth.
20. A method as claimed in claim 11 wherein the solid particle is sand.
21. A method as claimed in claim 11 wherein the solid particle is cellulose.
- 5 22. A method as claimed in claim 11 wherein the solid particle is polystyrene.
23. A method as claimed in claim 11 wherein the solid particle is clay.
24. A method as claimed in claim 11 wherein the solid particle is porous.
25. A method as claimed in claim 11 wherein the solid particle is nonporous.
26. A method as claimed in claim 11 wherein the solid particle is hydrophobic.
- 10 27. A method as claimed in claim 11 wherein the solid particle is hydrophilic.
28. A method as claimed in claim 11 wherein the solid particle is a nano particle.
29. A method as claimed in claim 11 wherein the solid particle is a macro particle.
30. A method as claimed in claim 11 wherein the solid particle is a micro particle.
31. In combination, a mixture of a fluid and a polymer capable of interacting with
- 15 charged molecules in the fluid.
32. In combination, a mixture of a fluid and a polymer capable of interacting with
- charged molecules in the fluid wherein the polymer is associated with a solid particle.

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